Amendments to the Claims

This listing of claims replaces all prior versions, and listings, of claims in the above-identified application:

Listing of Claims

1. (Original) A method of treating a patient having a chronic inflammatory disease, the method comprising administering to the patient a blocking agent to neutralize the capacity of Collagen XIII to bind to a α1β1 integrin.

2. (Original) The method of claim 1 wherein the chronic inflammatory disease is characterized by progressive pathogenesis resulting from infiltrating monocytes, lymphocytes, or both.

3. (Currently Amended) The method of claim 1 wherein the chronic inflammatory disease is renal fibrosis, lung fibrosis, liver fibrosis, rheumatoid arthritis, psoriasis, ~~experimental~~ colitis, or crescentic glomerulonephritis.

4. (Original) The method of claim 1 wherein the blocking agent is a peptide.

5. (Original) The method of claim 1 wherein the blocking agent is a neutralizing antibody.

6. (Original) The method of claim 1 wherein the blocking agent blocks the interaction of α1β1 integrin on peripheral blood monocytes and/or lymphocytes with Collagen XIII on vascular endothelium of chronically inflamed tissues.

7. (Original) A method for treating a subject having an inflammatory disease or other condition where integrin α1β1-positive interstitial monocyte and/or lymphocyte accumulation is

observed, the method comprising administering to the subject an active agent that distrupts the interaction between Collagen XIII and α1β1 integrin.

8. (Original) The method of claim 7 wherein the active agent blocks binding of Collagen XIII and α1β1 integrin.

9. (Original) The method of claim 8 wherein the blocking agent is a peptide.

10. (Original) The method of claim 8 wherein the blocking agent is an antibody.

11. (Currently Amended) The method of claim 7 wherein the inflammatory disease or other condition is renal fibrosis, lung fibrosis, liver fibrosis, rheumatoid arthritis, psoriasis, ~~experimental~~ colitis, or crescentic glomerulonephritis.

12. (Original) The method of claim 7 wherein the active agent blocks the interaction of α1β1 integrin on peripheral blood monocytes and/or lymphocytes with Collagen XIII on vascular endothelium of chronically inflamed tissues.

13. (Original) A method of reducing selective efflux of integrin α1β1-positive monocytes into the interstitium of chronically inflamed tissues, the method comprising contacting the α1β1 integrin on peripheral blood monocytes and/or lymphocytes with an active agent that interferes with the interaction between Collagen XIII and α1β1 integrin.

14. (Original) The method of claim 13 wherein reducing selective efflux of integrin α1β1-positive monocytes into the interstitium of chronically inflamed tissues comprises contacting the α1β1 integrin with a peptide having at least a portion of the amino acid sequence of Collagen XIII that binds specifically to α1β1 integrin.

15. (Original) The method of claim 13 wherein reducing selective efflux of integrin α1β1-positive monocytes into the interstitium of chronically inflamed tissues comprises contacting an antibody that binds to the Collagen XIII ligand on the cell surface of the vascular/capillary endothelial cells of inflamed tissues under conditions effective to block the binding site for Collagen XIII.

16. (Original) The method of claim 13 wherein reducing selective efflux of integrin α1β1-positive monocytes into the interstitium of chronically inflamed tissues comprises contacting the vascular endothelium with small inhibitory RNAs under conditions effective to prevent the expression of Collagen XIII protein on the cell surface.

17. (Original) A method of reducing the rate of monocyte and/or lymphocyte efflux into the interstitial space of chronically inflamed tissues, the method comprising blocking Collagen XIII from binding with α1β1 integrin.

18. (Original) The method of claim 17 wherein the blocking comprises blocking the Collagen XIII ligand.

19. (Original) The method of claim 17 wherein the blocking comprises blocking α1β1 integrin.

20. (Original) The method of claim 17 wherein blocking comprises contacting the integrin with a peptide fragment of Collagen XIII containing the binding site for α1β1 integrin.

21. (Original) The method of claim 17 wherein blocking comprises contacting the Collagen XIII ligand with a mono-specific antibody.

22. (Original) A method of reducing the rate of monocyte and/or lymphocyte efflux into the interstitial space of chronically inflamed tissues, the method comprising blocking Collagen XIII from binding with α1β1 integrin.

23. (Original) A method of blocking the interaction of α1β1 integrin on peripheral blood monocytes and/or lymphocytes with Collagen XIII on vascular endothelium of chronically inflamed tissues, the method comprising contacting the monocytes and/or lympocytes, the vascular endothelium, or both with an agent that either occupies the Collagen XIII binding site on α1β1 integrin or blocks the α1β1 binding site on Collagen XIII.

24. (Original) The method of claim 23 wherein the agent that occupies the Collagen XIII binding site on α1β1 integrin is a peptide inhibitor.

25. (Original) The method of claim 23 wherein the agent that blocks the α1β1 binding site on Collagen XIII is a neutralizing monoclonal antibody.

26. (Original) A method of identifying an agent that inhibits the efflux of monocytes into the interstitial space of a model where interstitial monocytes or lymphocytes are implicated, the method comprising identifying an agent that distrupts the interaction between Collagen XIII and α1β1 integrin.

27. (Original) The method of claim 26 wherein the agent inhibits binding of Alexa-conjugated purified α1β1 integrin to MCP-1 treated primary endothelial cells.

28. (Original) The method of claim 26 wherein the agent is an antibody that blocks the interaction of Alexa-conjugated purified α1β1 integrin to MCP-1-treated vascular endothelial cells in culture.

29. (Original) An isolated peptide having the sequence GAEGSPGL (SEQ ID NO. 1), wherein the peptide distrupts the interaction between Collagen XIII and α1β1 integrin.

30. (Original) The isolated peptide of claim 29 having the sequence GEKGAEGSPGLL (SEQ ID NO:2).

31. (Original) The isolated peptide of claim 29 having 8-16 amino acids.

32. (Original) The isolated peptide of claim 31 having 12-16 amino acids.

33. (Original) An isolated peptide consisting of GAEGSPGL (SEQ ID NO. 1).

34. (Original) An isolated peptide consisting of GEKGAEGSPGLL (SEQ ID NO:2).

35. (Original) An isolated peptide having an amino acid sequence that has at least 70% sequence identity to GAEGSPGL (SEQ ID NO. 1), wherein the peptide distrupts the interaction between Collagen XIII and α1β1 integrin.

36. (Original) An isolated peptide having an amino acid sequence that has at least 70% sequence identity to GEKGAEGSPGLL (SEQ ID NO:2), wherein the peptide distrupts the interaction between Collagen XIII and α1β1 integrin.

37. (Original) An antibody to the peptide of claim 29.

38. (Original) An antibody to the peptide of claim 30.

39. (Original) An antibody to the peptide of claim 33.

40. (Original) An antibody to the peptide of claim 34.

41. (Original) An antibody to the peptide of claim 35.

42. (Original) An antibody to the peptide of claim 36.